

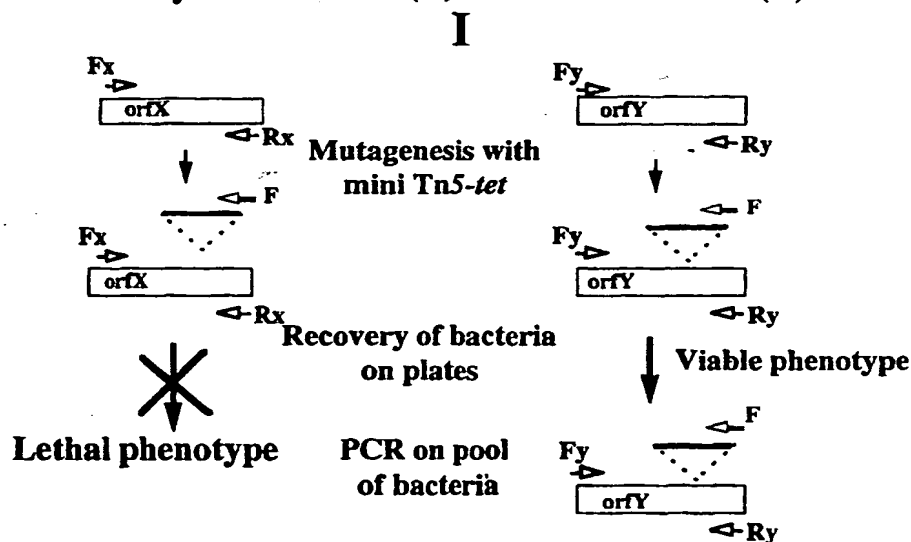


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(21) International Application Number: PCT/CA98/00893 (22) International Filing Date: 21 September 1998 (21.09.98) (30) Priority Data: 2,215,870 19 September 1997 (19.09.97) CA (71) Applicant (for all designated States except US): UNIVERSITE LAVAL [CA/CA]; Cité Universitaire, Québec, Québec G1K 7P4 (CA). (72) Inventors; and (75) Inventors/Applicants (for US only): LEVESQUE, Roger, C. [CA/CA]; 256, Des Sittelles, St-Nicolas, Québec G0S 2Z0 (CA). SANSCHAGRIN, François [CA/CA]; 995, Avenue Dandieu, Québec, Québec G1P 2G7 (CA). CARDINAL, Guy [CA/CA]; 11960, Place de la Gracieuse, Québec, Québec G2A 3CA (CA). (74) Agents: DUBUC, Jean, H. et al.; Goudreau Gage Dubuc & Martienau Walker, The Stock Exchange Tower, Suite 3400, 800, Place Victoria, P.O. Box 242, Montréal, Québec H4Z 1E9 (CA).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).  Published Without international search report and to be republished upon receipt of that report.

(54) Title: METHOD FOR THE IDENTIFICATION OF ESSENTIAL GENES AND THERAPEUTIC TARGETS

## EGT Assay for Essential (X) and Non Essential (Y) Genes



## (57) Abstract

The present invention relates to a method of identifying essential genes in a genome, based on an insertional mutagenesis of a population of cells or of DNA molecules and subjecting this population of cells or DNA molecules to an amplification process, whereby this total population of cells or DNA molecules which statistically represents at least one full insertionally mutated genome is amplified with at least two primer pairs and the extension products analysed, in order to distinguish essential genes from dispensable genes. The present invention is especially suited to the functional analysis of microbial genomes, and especially to haploid genomes.